

washing conditions of 60°C, 0.5XSSC, 0.1% SDS and that is at least 90% identical to the nucleic acid sequence of (a) or (b);

(d) a nucleic acid molecule having the sequence of SEQ ID NO:5;

(e) a nucleic acid molecule encoding an amino acid sequence comprising the sequence of SEQ ID NO:4 or SEQ ID NO:6;

(f) a nucleic acid molecule that encodes a fragment of the polypeptide of SEQ ID NO:4 or SEQ ID NO:6 having disintegrin or proteinase activity;

(g) a nucleic acid molecule encoding an amino acid sequence comprising amino acids 1-697 of SEQ ID NO:6, amino acids 698-721 of SEQ ID NO:6, amino acids 722-867 of SEQ ID NO:6; amino acids 400-499 of SEQ ID NO:6, or amino acids 500-697 of SEQ ID NO:6; and

(h) a nucleic acid molecule encoding an amino acid sequence comprising amino acids 1-58 of SEQ ID NO:4; amino acids 59-286 of SEQ ID NO:4; amino acids 287-495 of SEQ ID NO:4; amino acids 496-599 of SEQ ID NO:4; amino acids 600-786 of SEQ ID NO:4; amino acids 787-817 of SEQ ID NO:4; or amino acids 818-832 of SEQ ID NO:4.

16. A recombinant vector that directs the expression of the nucleic acid molecule of claim 15.

- 15.
17. An isolated polypeptide encoded by the nucleic acid molecule of claim
18. The isolated polypeptide according to claim 17 in non-glycosylated form.
19. An isolated antibody that binds to a polypeptide consisting of amino acids 1-867 of SEQ ID NO:6 or amino acids 1-832 of SEQ ID NO:4.
20. The isolated antibody according to claim 19, wherein the antibody is a monoclonal antibody.
21. A host cell transfected or transduced with the vector of claim 16.
22. A method for the production of SVPH3-13 or SVPH3-17 polypeptide comprising culturing a host cell of claim 21 under conditions promoting expression
23. The method of claim 22, further comprising recovering the polypeptide produced.
24. An isolated SVPH3-13 polypeptide comprising an amino acid sequence selected from the group consisting of:

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- (a) amino acids 1-697 of SEQ ID NO:6;
- (b) amino acids 698-721 of SEQ ID NO:6;
- (c) amino acids 722-867 of SEQ ID NO:6;
- (d) amino acids 400-499 of SEQ ID NO:6; and
- (e) amino acids 500-697 of SEQ ID NO:6;
- (f) an amino acid sequence having 80% identity with any of (a)-(e);
- (g) a fragment of the amino acid sequence of SEQ ID NO:6 having proteinase activity; and
- (h) a fragment of the amino acid sequence of SEQ ID NO:6 having disintegrin activity.

25. An isolated SVPH3-17 polypeptide comprising an amino acid sequence selected from the group consisting of:

- (a) amino acids 1-58 of SEQ ID NO:4;
- (b) amino acids 59-286 of SEQ ID NO:4;
- (c) amino acids 287-495 of SEQ ID NO:4;
- (d) amino acids 496-599 of SEQ ID NO:4;
- (e) amino acids 600-786 of SEQ ID NO:4;
- (f) amino acids 787-817 of SEQ ID NO:4;
- (g) amino acids 818-832 of SEQ ID NO:4;
- (h) an amino acid sequence having 80% identity with any of (a)-(g);

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(i) a fragment of the amino acid sequence of SEQ ID NO:4 having proteinase activity; and

(j) a fragment of the amino acid sequence of SEQ ID NO:4 having disintegrin activity.

26. A method of screening for inhibitors of SVPH3-13 or SVPH3-17 polypeptide activity comprising:

(A) contacting an SVPH3-13 or SVPH3-17 counter-structure molecule with a polypeptide of claim 17 in the presence and absence of a test compound, and

(B) comparing the level of binding of the counter-structure to the polypeptide in the presence and absence of said test compound, wherein a lower level of binding of the counter-structure to the polypeptide in the presence of said test compound is indicative of the presence of an inhibitor in said test compound.

27. The method of claim 26, wherein said method is a yeast two-hybrid assay.

28. The method of claim 26, wherein the counter-structure molecule is an integrin.

29. A method of structure-based design of an SVPH3-13 or SVPH3-17 inhibitor comprising:

(A) determining the three-dimensional structure of a polypeptide of claim 17,

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